UTAH DEPARTMENT OF TRANSPORTATION
TRAFFIC OPERATIONS CENTER
MONTHLY REPORT FEBRUARY 2004

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Phone: 887-3700 Fax: 887-3797 commuterlink.utah.gov

Field Devices Summary

Freeway Closed Circuit Television (CCTV)	171
Surface Street CCTV	32
Dial-up CCTV	35
Total CCTV	**238**
Freeway VMS	42
Surface Street VMS	17
Portable VMS	2
Total VMS	**61**
HAR (6 deployed, 5 portable units)	11
TMS	243
RWIS	41
Connected Traffic Signals	623
Connected Ramp Meters	23

Mark Taylor Presents Design, Operations, and Inspection Training Course in Region 2

Operations Summary

VMS Messages Displayed	278
Signal Timing Calls	42
Signal Maintenance Calls	206
New Work Orders	306
Incident Responses	572
Website Visitor Sessions	133,720
511 Calls	89,469
Email Alerts Sent	252
Weather Desk Calls	702
CommuterLink Questions	11

KUDOS!

Special thanks to Troy Hyer and Jonny Turner from the Traffic Operations Center Control Room for their effort in answering the public's request to expand the CommuterLink system email alerts. Through their combined effort, these alerts will now be available on I-15 from Ogden to Spanish Fork and on US-6 from Spanish Fork to Price.

TOC Employee of the Month

Bob Pieper – Electronics Supervisor

TOC Mission

1. To Support UDOT and the Department of Public Safety in Improving Highway Safety.
2. To Help Provide Reliable and Efficient Travel.
3. To Provide Useful and Timely Real-time Traffic Information.
4. To Work Together with Other Government Agencies to Serve the Public.
5. To Provide Excellent Customer Service.

ACTIVITY HIGHLIGHTS

TOC Activities

This Month

1. Several new assignments were announced in the Traffic Management Division in February. These changes follow the merge of the ITS division and TOC division last December. Richard Manser was appointed as Deputy Division Manager; Mark Parry was appointed as an ITS Project Manager over ITS projects in Region 2; Bryan Chamberlain is responsible for management of the Control Room and traveler information systems; Mark Taylor is responsible for the Traffic Signal Coordination Section; Bill Butterfield was appointed to an Acting Project Manager position; Joe McBride is responsible for asset management; and Sam Sherman continues to work as Project Manager and Commercial Vehicle Operations coordinator. The Traffic Management Division is responsible for the planning, design, and implementation of new ITS projects as well as the operation of the TOC and the maintenance of the existing ITS systems.

2. Larry Montoya, Mark Taylor, Bill Butterfield, and Rich Williams taught five traffic signal design, operations, and inspection training courses to various groups throughout UDOT. The goal was to provide in-house training on the inspection and design of traffic signals, as well as vehicle detection and traffic signal timing. The training helped increase the overall level of understanding of traffic signals for the construction inspector in the field. This training course was in response to recommendations from the UDOT Quality Improvement Team to transfer the traffic signal inspection responsibilities to each Region. Larry Montoya discussed many of the recent changes to the standard drawings for signalized intersections and procedures for the procurement of state furnished materials. Mark Taylor discussed vehicle detection (both inductive loops and video detection), traffic signal timing concepts, and the recent changes to UDOT's new detection layout. Bill Butterfield and Rich Williams provided training on traffic signal inspection. Sessions were well attended, and trainees reported them to be of great value.

3. The Control Room Operations Staff welcomes Kathy Jo Hall as a new operator. Kathy Jo has worked with the Department of Public Safety for seven years as a Dispatcher. With her extensive knowledge of the Computer Aided Dispatch (CAD) system and her experience as a dispatcher, she has already proved herself to be a valuable asset to the Control Room Staff. Kathy Jo will be working the Sunday and Monday AM operator shift.

4. Nineteen students from the Reid School toured the TOC during the month of February. The students are in the 6th and 7th grades, and were able to see how their foundational knowledge of science and computers can be used.

Students from the Reid School

ATMS Improvement and Expansion Activities

The following is a list of many of the projects that have either been completed, or are currently underway:

Region 1:

- Fiber installation and testing is being completed from 1500 West to Main Street on Riverdale Road. Field communication equipment has been installed, and final connectivity with the Region 1 signal server will be complete pending installation of a new mini-hub, communication cables, and acceptance testing. Final acceptance is expected by April 17.
- Work is being performed in order to expand the CommuterLink Email Alert service on I-15 from the I-215 North Interchange to 12th Street in Ogden. This expansion is expected to be complete and available to motorists in Davis and Weber Counties in early March.

Region 2:

- Design has been completed for the Incident Description message (IDX). IDX is a means by which the ATMS system will be able to communicate incidents to public safety CAD systems, and vice versa. This software is being developed in response to a Federal Field Operations Test to design and demonstrate the feasibility and benefits of exchanging incident information between transportation and emergency response centers. UDOT's partners in this program include Salt Lake City Police and Fire, Utah DPS, Valley Emergency Communication Center (VECC), and Utah Transit Authority (UTA). When this project is complete, these agencies will be able to automatically transmit and receive incident information to any other partner agency using their existing incident management or CAD system, thereby eliminating duplicate entries and reducing the need for phone calls to request agency assistance.
- The second phase of the I-215 West Widening Project has begun. This project runs from 4700 South to Redwood Road on I-215. A sound wall will be installed in addition to the widening of the freeway. A VMS on SB I-215 at 5400 South has been removed, and will be replaced toward the end of the project.

Region 3:

- Database work has been completed on the ATMS to provide CommuterLink Alerts for I-15 in Utah County. Alerts will now be generated for incidents on I-15 from the Point of the Mountain to Spanish Fork. Work is also underway to add Response Segments along US-6 from I-15 in Spanish Fork to Price.
- Meetings have been held with Orem City and Provo City Department of Public Works in preparation for equipment orders for the Multi-Agency Fiber Backbone Project. Testing was performed in Orem for the inner-operability of CCTV with the existing Orem Fiber Optic infrastructure. This testing verified that the Orem Fiber network and the UDOT CCTV video feeds are compatible. Great coordination efforts are being made by UDOT, Provo City, and Orem City at their monthly planning meetings.

Region 4:

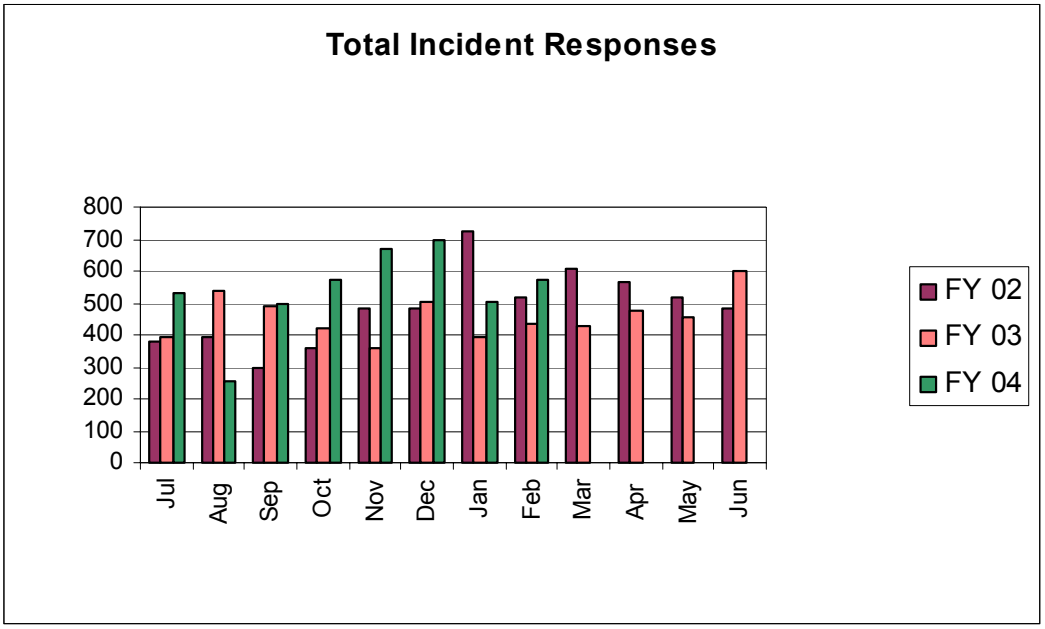
- A demonstration of a wireless network system using IP radios for the St. George Signal Interconnect was provided to State and City engineers. This demonstration illustrated the connectivity of the Traffic Signals using a wireless link, and also included the wireless transmission of CCTV video feeds.

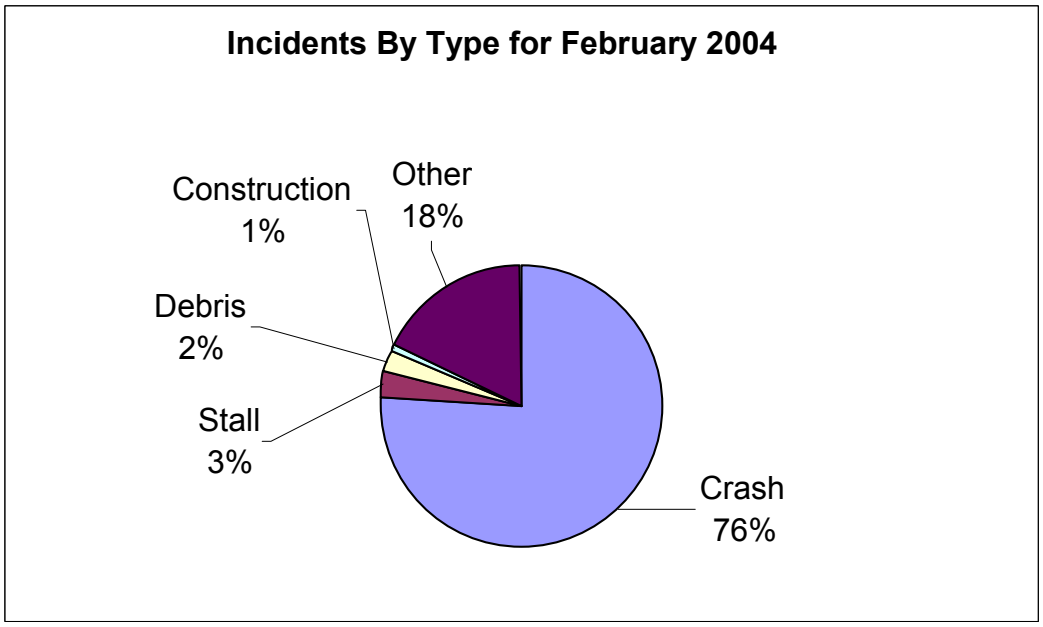
Acronyms

ATMS	Advanced Traffic Management System	TMS	Traffic Monitoring Station (count station)
CCTV	Closed Circuit Television	TOC	Traffic Operations Center
DPS	Department of Public Safety	TTI	Travel Time Index
HAR	Highway Advisory Radio	VMS	Variable Message Sign
RWIS	Road-Weather Information System	*i*2TMS	Integrated Interagency Traffic Management System

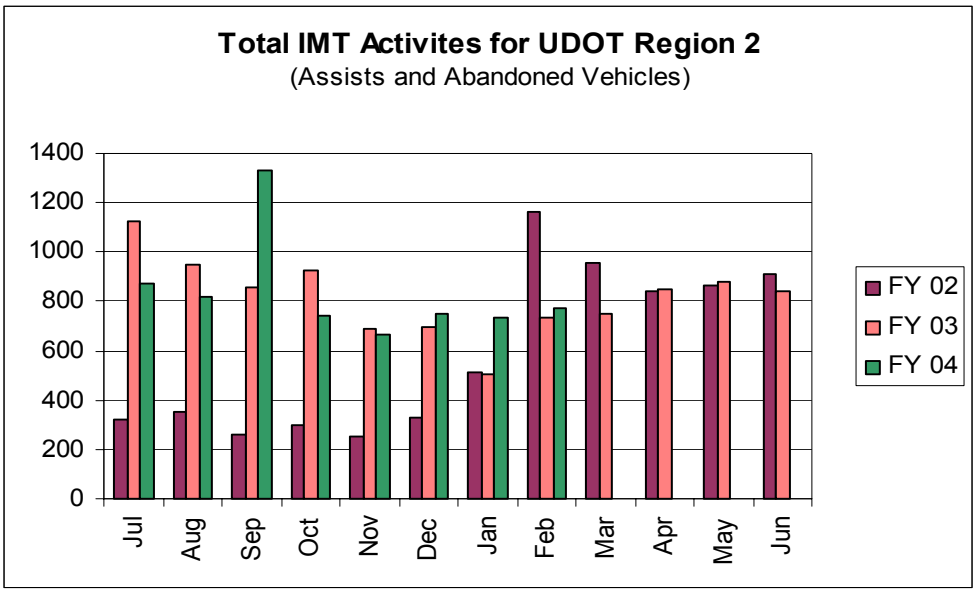
Safety

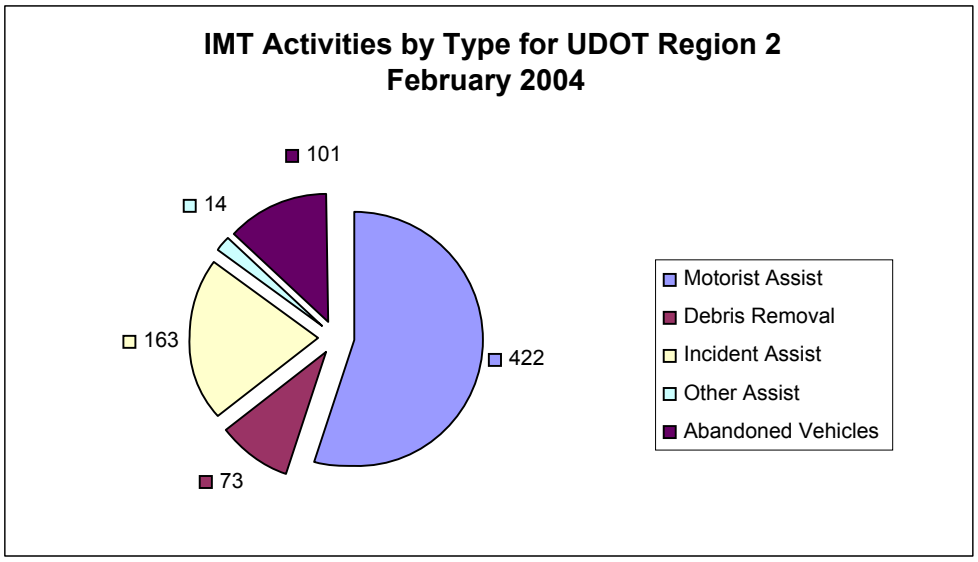
An incident response occurs each time an incident is recorded in the ATMS system. These can be of several types, including crash, construction, debris, stall, congestion, or other. Each time an incident is created, information is sent to the 511 system, the website, and to the public through email alerts.





Region 2 Incident Management Team (IMT) Activities





Freeway Traffic Level of Service

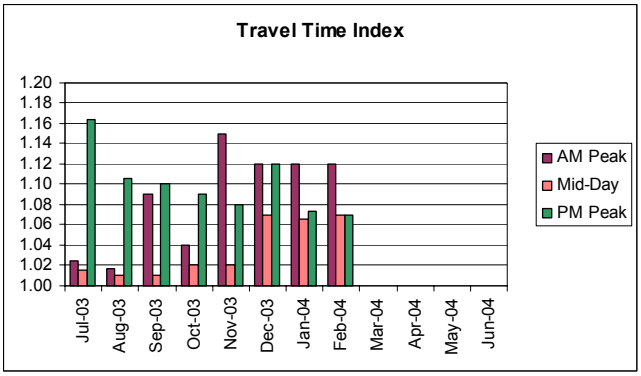
Freeway flow measures are taken from the Traffic Monitoring Stations (TMS) located throughout the Salt Lake Valley. As more TMS sites are installed throughout the state, they will be included in these performance measures.

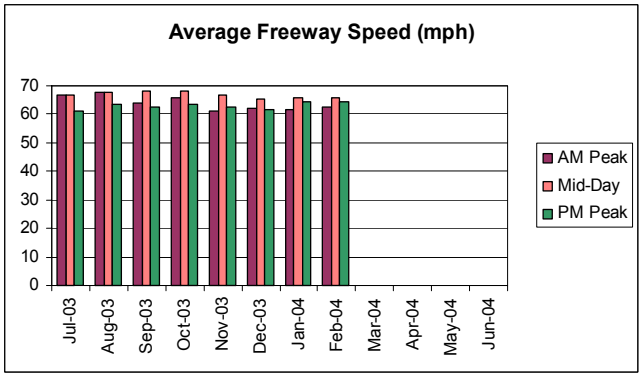
Travel Time Index: This measure of mobility is based on freeway speeds and is weighted by segment lengths and by the traffic volume. A value of 1.0 represents free-flow speeds. A value of 1.12 indicates that the average vehicle trip takes 12% longer than if that were the only vehicle on the freeway.

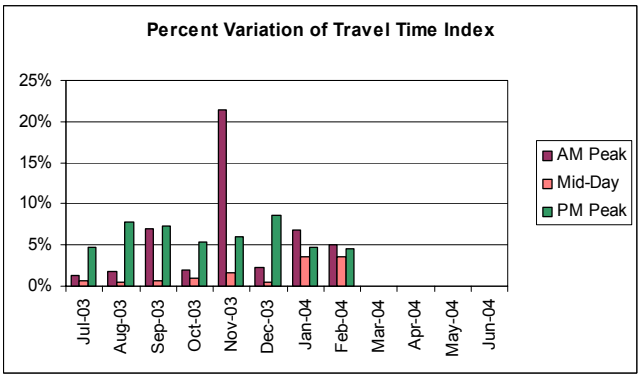
Percent Variation of Travel Time Index: The percent variation in the Travel Time Index is a measure of how much the Travel Time Index changes from day-to-day.

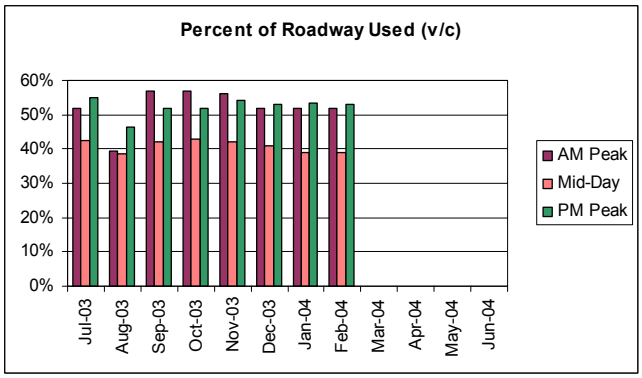
Average Freeway Speed: The Freeway Speed is weighted by volume.

Percent of Roadway Used: The percent of roadway used is the ratio of the volume on the segment to its capacity. This is otherwise known as the volume to capacity ratio, or (v/c).









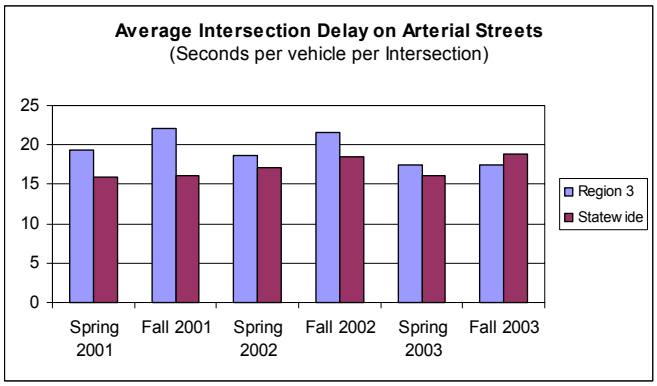
The 5 links with the highest average Travel Time Index for the month are:

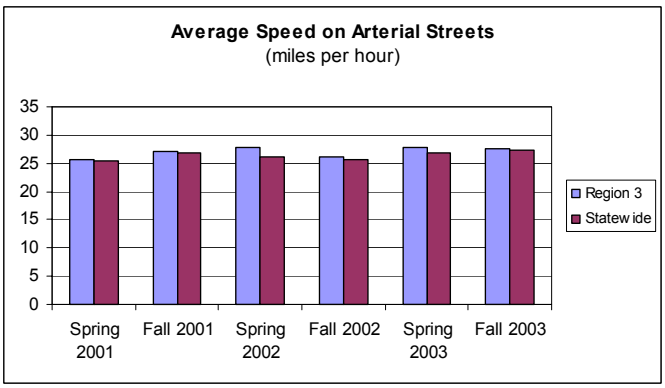
Segment	Period	Avg Of TTI
I-15 NB from 600 N to I-215 W	PM Peak	1.30
I-215 S WB from Knudsen's Corner to I-15	AM Peak	1.27
I-15 SB from 600 N to 600 S	PM Peak	1.27
I-15 SB from 600 N to 600 S	AM Peak	1.23
I-215 S WB from Knudsen's Corner to I-15	PM Peak	1.16

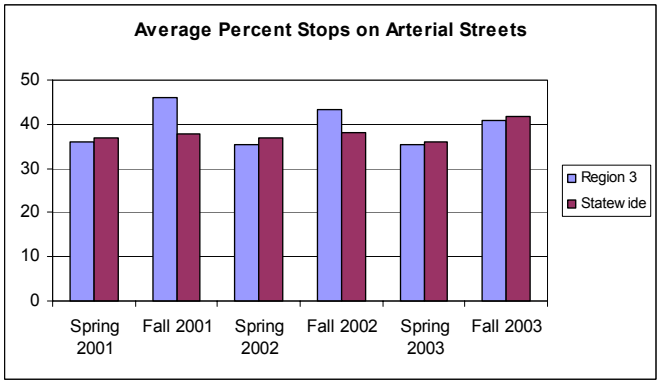
Surface Street Traffic Level of Service

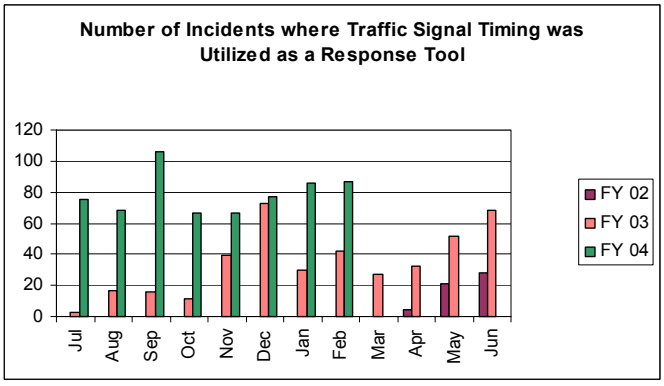
The surface street traffic statistics are generated through a series of Travel Time measurements. These are conducted using a special equipped vehicle which measures the average travel time, the average percent of intersections at which a vehicle must stop, the average time stopped at an intersection, and the average speed. The Traffic Systems Section gathers these measurements from Regions 1, 2, 3, and 4 twice each year. The chart in the lower right hand corner shows the number of incidents where traffic signal timing was modified in order to help traffic flow around closed lanes, or to help relieve excessive congestion.

Since the data is gathered semi-annually, each month this report will provide charts for a Region compared to the Statewide Average. The charts below represent Region 3 compared to the Statewide Average.

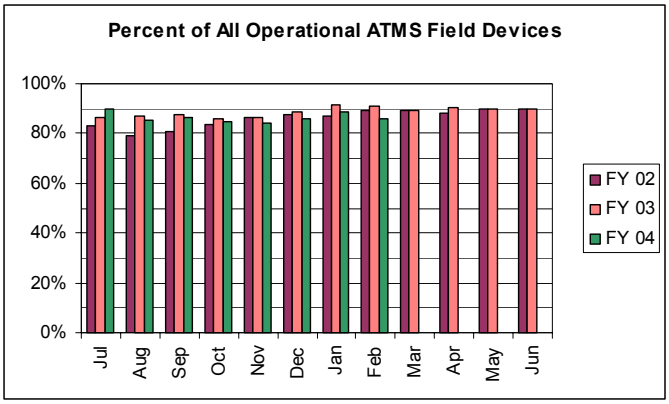


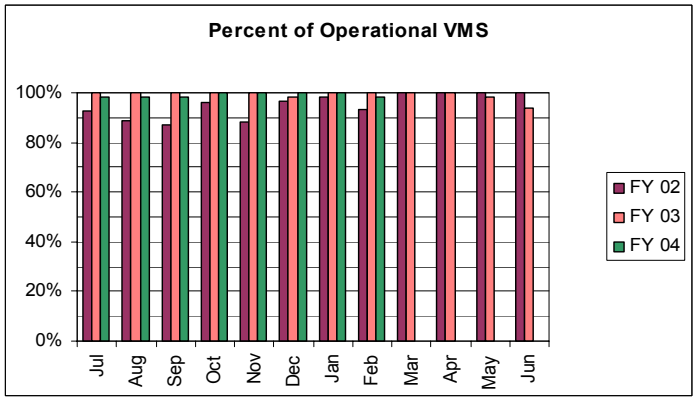


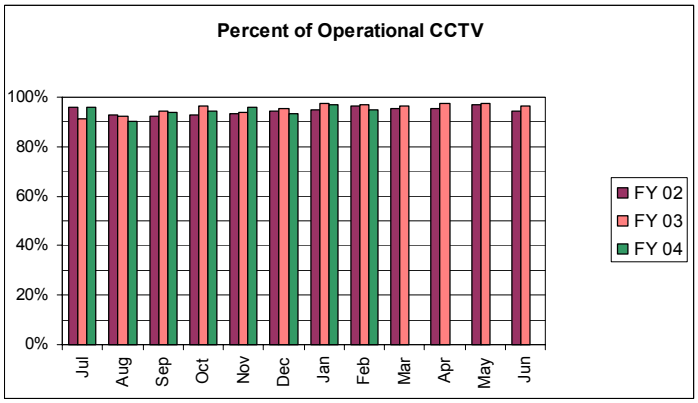


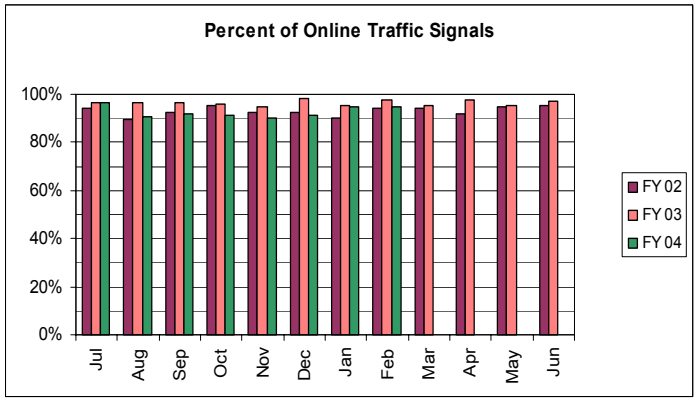


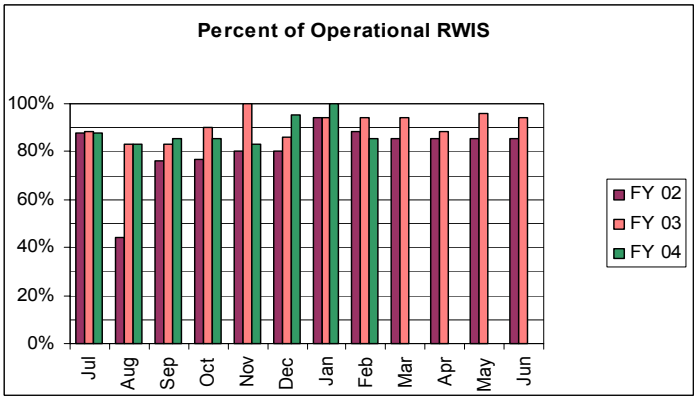
Maintenance

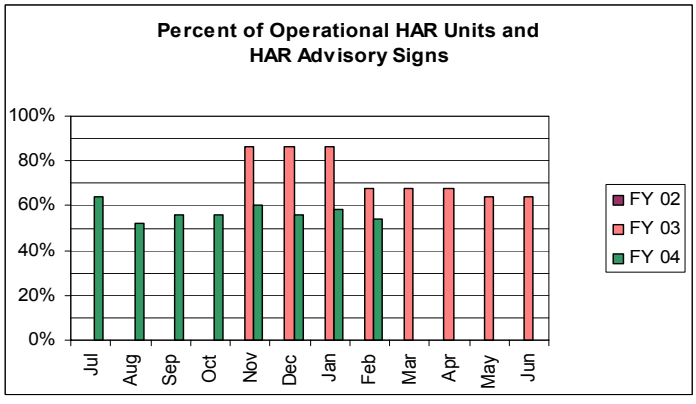


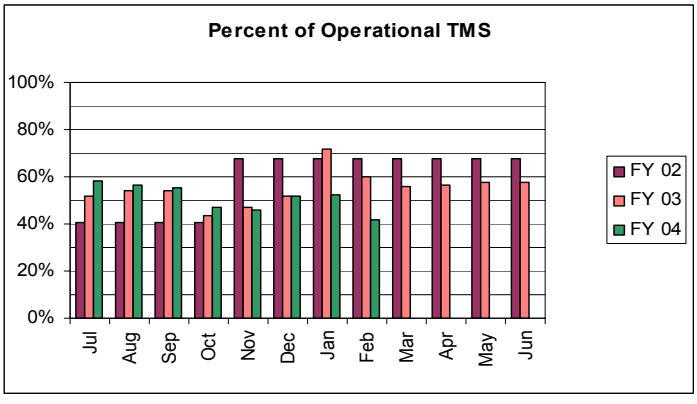




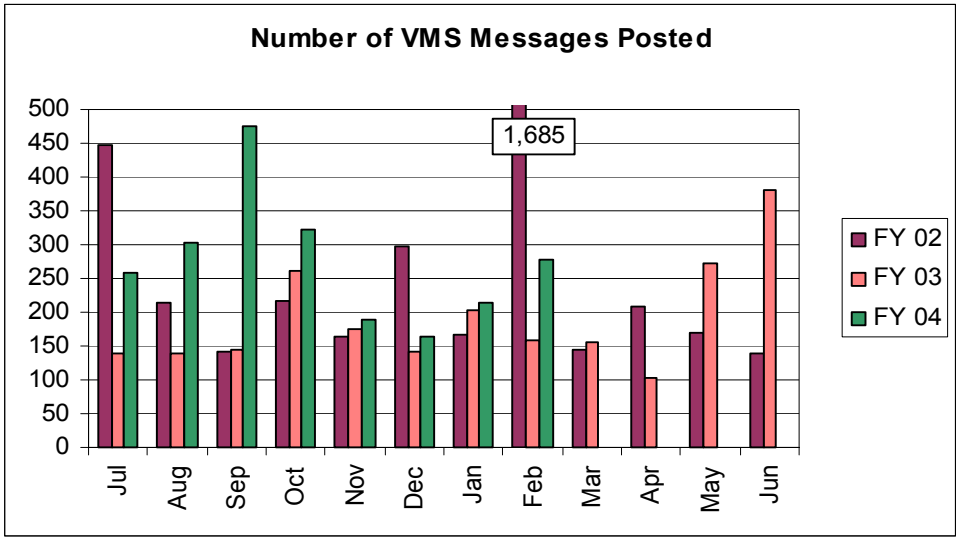


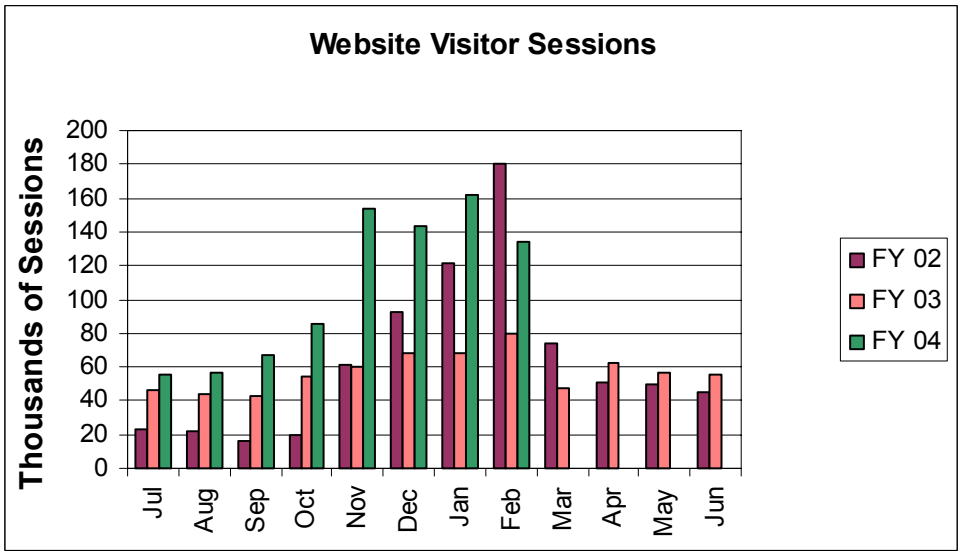


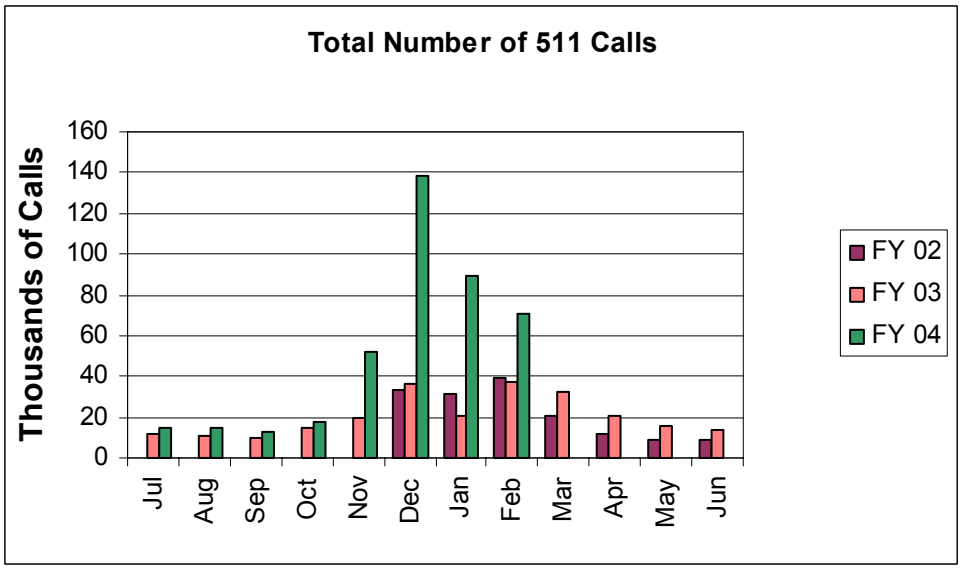




Traveler Information







Customer Service